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## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/527,048  
Source: PGI  
Date Processed by STIC: 3-18-05

# ***ENTERED***



PCT

## RAW SEQUENCE LISTING

DATE: 03/18/2005

PATENT APPLICATION: US/10/527,048

TIME: 11:07:11

Input Set : A:\976-23 PCT-US sequence listing.txt

Output Set: N:\CRF4\03182005\J527048.raw

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3 <110> APPLICANT: Center for Genetic Engineering and Biotechnology.
5 <120> TITLE OF INVENTION: VECTOR FOR PRODUCTION OF ANGIOSPERM TRANSPLASTOMIC PLANTS.
7 <130> FILE REFERENCE: Vector for plastid transformation
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/527,048
C--> 10 <141> CURRENT FILING DATE: 2005-03-07
12 <160> NUMBER OF SEQ ID NOS: 26
14 <170> SOFTWARE: PatentIn Ver. 2.1
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 21
18 <212> TYPE: DNA
19 <213> ORGANISM: Artificial Sequence
21 <220> FEATURE:
22 <223> OTHER INFORMATION: Description of Artificial Sequence: Oligonucleotide
23     corresponding to the region -291 to -270 (from the
24     start of translation) of the tobacco rbcL gene.
26 <400> SEQUENCE: 1
27 gggaagttct tattatttag g                                21
30 <210> SEQ ID NO: 2
31 <211> LENGTH: 20
32 <212> TYPE: DNA
33 <213> ORGANISM: Artificial Sequence
35 <220> FEATURE:
36 <223> OTHER INFORMATION: Description of Artificial Sequence: Oligonucleotide
37     corresponding to the region +1213 to +1233 (from the
38     start of translation) of the tobacco rbcL gene.
40 <400> SEQUENCE: 2
41 ccaaggtatgt cctaaagttc                                20
44 <210> SEQ ID NO: 3
45 <211> LENGTH: 133
46 <212> TYPE: DNA
47 <213> ORGANISM: Artificial Sequence
49 <220> FEATURE:
50 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
51     fragment corresponding to the region -162 to -29
52     of the non-translating lider of the tobacco rbcL
53     gene, with modifications to introduce an "ideal"
W--> 54     lacO.
56 <400> SEQUENCE: 3
57 ccatggtcta ataataaac attctgatta gttgataatt caaattgtga gcgctcacaa 60
58 ttgaaagat tcctgtgaaa agtttcatta acacggaatt cgtgtcgagt agaccttggt 120
59 gttgtgagaa ttc                                133
62 <210> SEQ ID NO: 4
63 <211> LENGTH: 1523

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64 <212> TYPE: DNA
65 <213> ORGANISM: Artificial Sequence
67 <220> FEATURE:
68 <223> OTHER INFORMATION: Description of Artificial Sequence: Nucleotide sequence
69     of the rbcL-border.
71 <400> SEQUENCE: 4
72 ggaagattct tattatttag gtagtcagg tatttccatt tcaaaaaaaaa aaaaagtaaa 60
73 aaagaaaaat tgggttgccg tatatatatg aaagagtata caataatgat gtatttggca 120
74 aatcaaatac catggtctaa taatcaaaca ttctgattag ttgataattc aaattgtgag 180
75 cgctcacaaat ttgaaagatt cctgtgaaaa gtttcattaa cacggaattc gtgtcgagta 240
76 gaccttggtt ttgtgagaat tcttaattca tgagttgtag ggagggattt atgtcaccac 300
77 aaacagagac taaagcaagt gttggattca aagctggtgt taaagagtac aaattgactt 360
78 attatactcc tgagtaccaa accaaggata ctgatataatt ggcagcattc cgagtaactc 420
79 ctcaacctgg agttccacct gaagaagcag gggccgcggt agctgccgaa tcttctactg 480
80 gtacatggac aactgtatgg accgatggac ttaccagcct tgatcgttac aaagggcgat 540
81 gctaccgcat cgagcgtggt gttggagaaa aagatcaata tattgcttat gtagcttacc 600
82 ctttagacct ttttgaagaa ggttctgtta ccaacatggt tacttccatt gtaggtaacg 660
83 tatttggggt caaagccctg cgcgctctac gtctggaaga tctgccaatc cctcctgctt 720
84 atgttaaaac tttccaaggt ccgcctcatg ggatccaagt tgaaagagat aaattgaaca 780
85 agtatggtcg tccccgtgtt ggatgtacta ttaaacctaa attgggggta tctgctaaaa 840
86 actacggtag agccgtttat gaatgtcttc gcggtggact tgattttact aaagatgatg 900
87 agaacgtgaa ctcaacaacca tttatgcgtt ggagagatcg tttcttattt tgtgccgaag 960
88 cactttataa agcacaggct gaaacagggt aaatcaaagg gcattacttg aatgctactg 1020
89 caggtacatg cgaagaaatg atcaaaagag ctgtatttgc tagagaattg ggcgttccga 1080
90 tcgtaatgca tgactactta acgggggggt tcaccgcaaa tactagcttg gctcattatt 1140
91 gccgagataa tgggtctactt cttcacatcc accgtgcaat gcatgcggtt attgatagac 1200
92 agaagaatca tggtatccac ttccgggtat tagcaaaagc gttacgtatg tctgggtggag 1260
93 atcatattca ctctggtacc gtagtaggta aacttgaagg tgaaagagac ataactttgg 1320
94 gctttgttga tttactgcgt gatgattttg ttgaacaaga tcgaagtcgc ggtatttatt 1380
95 tcaactaaga ttgggtctct ttaccagggt ttctaccctg ggcttcagga ggtattcacg 1440
96 tttggcatat gcctgctctg accgagatct ttggggatga ttccgtacta cagttcgggtg 1500
97 gaggaacttt aggacatcct tgg                                     1523
100 <210> SEQ ID NO: 5
101 <211> LENGTH: 24
102 <212> TYPE: DNA
103 <213> ORGANISM: Artificial Sequence
105 <220> FEATURE:
106 <223> OTHER INFORMATION: Description of Artificial Sequence: Oligonucleotide
107     corresponding to the region -543 to -519 (from the
108     start of translation) of the rice atpB gene.
110 <400> SEQUENCE: 5
111 gacttgagtt gttgttattg taag                                     24
114 <210> SEQ ID NO: 6
115 <211> LENGTH: 23
116 <212> TYPE: DNA
117 <213> ORGANISM: Artificial Sequence
119 <220> FEATURE:
120 <223> OTHER INFORMATION: Description of Artificial Sequence: Oligonucleotide
121     corresponding to the region +1188 to +1211 (from the

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122      start of translation) of the rice atpB gene.
124 <400> SEQUENCE: 6
125 atgtcctgaa gttctttgta acg                                     23
128 <210> SEQ ID NO: 7
129 <211> LENGTH: 132
130 <212> TYPE: DNA
131 <213> ORGANISM: Artificial Sequence
133 <220> FEATURE:
134 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
135      fragment corresponding to the region -654 to -543
136      of the non-translating lider of the rice atpB gene,
137      with added restriction sites.
139 <400> SEQUENCE: 7
140 aagcttgccc aaaaaggccg tcgacaaaat ggggggcatg cttaagttaa tgaatatggt 60
141 tcattcatat aatatgtttc attcatatat aatgggtaca ccctgtgtac attctatgct 120
142 ataggaattc at                                     132
145 <210> SEQ ID NO: 8
146 <211> LENGTH: 1887
147 <212> TYPE: DNA
148 <213> ORGANISM: Artificial Sequence
150 <220> FEATURE:
151 <223> OTHER INFORMATION: Description of Artificial Sequence: Nucleotide sequence
152      of the atpB-border.
154 <400> SEQUENCE: 8
155 aagcttgccc aaaaaggccg tcgacaaaat ggggggcatg cttaagttaa tgaatatggt 60
156 tcattcatat aatatgtttc attcatatat aatgggtaca ccctgtgtac attctatgct 120
157 ataggaattc attcgacttg agttgttggt attgtaagtt aacatgcttc gattattaaa 180
158 ccatggattt gattcaccaa atccatcttt attgtatact ctttaataga tatagcgcaa 240
159 ccccaaatac acttctaate cttattaagt tcttaataga ccccttttc ttattttgag 300
160 tggaaatacc taaatactac gaaaattctc tgttgacagc aatctatgct tcacagtagt 360
161 atatattttg tatatcgaag tcttagataa gaaagtagag taggcacaaa tcgtttacaa 420
162 aaggcaaaaat gtatatgaaa aaaagattga ttgaactttc cgacggactc attccatgag 480
163 taaacgattg aatgggattc gtttgggcaa cgaaatcaag tgctgggtccc cttttctctc 540
164 ttattgaatt aactaattca tttccttttg acttttggat ttttggatat ttttttgggtg 600
165 ttgatttggc attattcaac aagaaaaaaa tcaaaatttc gataaattcc ttttttttga 660
166 aaattatgtg ataattatga gaaccaatcc tactacttct cgtcccgggg tttctacaat 720
167 tgaagaaaaa agtacagggc gtatcgatca aattattgga cccgtgctgg atgtcacttt 780
168 tccccggggc aagttacctt atatttataa tgctttggta gtcaagagtc gagacactga 840
169 cggtaaagcaa attaatgtaa cttgtgaggt acaacaatta ttaggaaata atcgagttag 900
170 agctgtagct atgagtgcta cagatgggtt gatgagagga atggaagtga ttgacacggg 960
171 agctcctctc agtgttcttg tcggtggagc tactcttggg cgaattttca acgttcttgg 1020
172 ggagcctgtt gacaatttgg gtccgtgtaga tactagtgcg acattcccta ttcatagatc 1080
173 cgcgcccgcc tttatcgagt tagatacgaa attatccatc tttgaaactg gtattaagggt 1140
174 ggtcgatctt ttagctcctt atcggcgtgg aggaaaaatc ggactatttg ggggagctgg 1200
175 agtaggtaaa acagtactca tcatggaatt aatcaacaat attgctaaag ctacgggggg 1260
176 cgtatccgta tttggcggag taggggaacg gactcgtgaa ggaaatgac tttatatgga 1320
177 aatgaaggaa tctggagtaa ttaatgaaaa aaatcttgag gaatcaaagg tagctctagt 1380
178 ctatggccaa atgaatgaac cgccaggagc tcgtatgaga gttgggttga ctgccctaac 1440
179 tatggcagaa tatttccgag atgttaataa gcaagacgtg cttctattca tcgataatat 1500

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180 ctttcgtttt gttcaagcag gatcggaggt atctgcctta ttagggagaa tgccctctgc 1560
181 agtgggttat caacctactc ttagtacaga aatgggttct ttgcaagaaa gaattacttc 1620
182 tactaaaaag ggatctataa cttcgatcca agcggtttat gtacctgcgg acgatttgac 1680
183 cgacctgct cctgctacaa catttgaca ttggatgct actaccgtac tttccagagg 1740
184 attagcttcc aaagggattt atcctgcagt agatccttta gattcaacct caactatgtt 1800
185 acaacctcgg atcgttggca acgaacatta tgaaactgca caaagagtta agcaaacttt 1860
186 acaacgttac aaagaacttc aggacat 1887
189 <210> SEQ ID NO: 9
190 <211> LENGTH: 24
191 <212> TYPE: DNA
192 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
195 <223> OTHER INFORMATION: Description of Artificial Sequence: Oligonucleotide primer
196     used to amplify the hgh gene by PCR, with a RBS.
198 <400> SEQUENCE: 9
199 gggaggaatg agatatgaaa aagc 24
202 <210> SEQ ID NO: 10
203 <211> LENGTH: 24
204 <212> TYPE: DNA
205 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: Description of Artificial Sequence: Oligonucleotide primer
209     used to amplify the hgh gene by PCR, with added KpnI site.
211 <400> SEQUENCE: 10
212 gtcggtacct actctatttc ttgtg 24
215 <210> SEQ ID NO: 11
216 <211> LENGTH: 41
217 <212> TYPE: DNA
218 <213> ORGANISM: Artificial Sequence
220 <220> FEATURE:
221 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
222     fragment with useful restriction sites for the construction
223     of the selection cassette with the hgh gene.
225 <400> SEQUENCE: 11
226 aagcttgatt cgagtgaacg cgtatagggc ccgggagatc t 41
229 <210> SEQ ID NO: 12
230 <211> LENGTH: 2223
231 <212> TYPE: DNA
232 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
235 <223> OTHER INFORMATION: Description of Artificial Sequence: Nucleotide sequence of
236     the DNA fragment containing the selection cassette with
237     repeated borders that was cloned in the pBluescript.
239 <400> SEQUENCE: 12
240 aagcttgatt cgagtgaacg cgtatagggc ccaattcgag ctcggtacca gcaccaccag 60
241 cggtagagtg cggaacttct acaacctcaa agcccataac gttgcggata gaacccttct 120
242 caggggtcaat cagagcagcg tagtttgctg cgttcggcat cagtgctgcc agaatcgag 180
243 agtagctatc tgggtcacag tagaacacac ggtcagcagc cggaacatag ttcttgggtca 240
244 gagccgcacg agccttagtc agagccgcaa taatctcctt acccagcgca acttgggtcgg 300

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245 tcaagtgcgg ccttggtctg agtgggtctca attacggtag cagtacctaa gccctcgggg 360
246 gatctgggga ggaatgagat atgaaaaagc ctgaactcac cgcgacgtct gtcgagaagt 420
247 ttctgatcga aaagttcgac agcgtctccg acctgatgca gctctcggag ggcgaagaat 480
248 ctctgtcttt cagcttcgat gtaggagggc gtggatatgt cctgcgggta aatagctgcg 540
249 ccgatggttt ctacaaagat cgttatgttt atcggcactt tgcctcggcc gcgctcccga 600
250 ttccggaagt gcttgacatt ggggagttta gcgagagcct gacctattgc atctcccgc 660
251 gtgcacaggg tgtcacgttg caagacctgc ctgaaaccga actgccgct gttctacaac 720
252 cggtcgcgga ggctatggat gcgatcgtg cggccgatct tagccagacg agcgggttcg 780
253 gccatttcg accgcaagga atcgggtcaat acactacatg gcgtgatttc atatgcgcga 840
254 ttgctgatcc ccatgtgtat cactggcaaa ctgtgatgga cgacaccgtc agtgcgctcg 900
255 tcgcgagggc tctcgatgag ctgatgcttt gggccgagga ctgccccgaa gtccggcacc 960
256 tcgtgcacgc ggatttcggc tccaacaatg tctgacgga caatggccgc ataacagcgg 1020
257 tcattgactg gagcgaggcg atgttcgggg attcccaata cgaggctcgc aacatcttct 1080
258 tctggaggcc gtggttggct tgtatggagc agcagacgcg ctacttcgag cggaggcatc 1140
259 cggagcttgc aggatcgcca cgactccggg cgtatatgct ccgcattggt cttgaccaac 1200
260 tctatcagag cttggttgac ggcaatttcg atgatgcagc ttgggcgcag ggtcgatgcg 1260
261 acgcaatcgt ccgatccgga gccgggactg tcgggcgtac acaaatcgcc cgcagaagcg 1320
262 cggccgtctg gaccgatggc tgtgtagaag tactcgccga tagtggaac cgacgcccc 1380
263 gcaactcgtc gagggcaaa aaatagagta ggtaccagca ccaccagcgg tgagggtcgg 1440
264 aacttctaca acctcaaagc ccataacgtt gcgcatagaa ccttctcag ggtcaatcag 1500
265 agcagcgtag tttgctgcgt tcggcatcag tgctgccaga atcgagagt agctatctgg 1560
266 gtcacagtag aacacacggt cagcagccgg aacatagttc ttggtcagag ccgcacgagc 1620
267 cttagtca ga gccgaataa tctccttacc cagcgcaact tggtcggtaa gtgcggcctt 1680
268 gttctgagtg gttcaatta cggtagcctt acctaaagcc tcgggggatc agcttggtg 1740
269 ttttgccgga tgagagaaga ttttcagcct gatacagatt aaatcagaac gcagaagcgg 1800
270 tctgataaaa cagaatttgc ctggcggcag tagcgcggtg gtccacactg acccatgcc 1860
271 gaactcagaa gtgaaacgcc gttagcgcca tggtagtggt ggggtctccc atgcgagagt 1920
272 agggaactgc caggcatcaa ataaaacgaa aggtcagtc gaaagactgg gcctttcgtt 1980
273 ttatctgttg tttgtcgggt aacgctctcc tgagtaggac aaatccgcgg ggagcggatt 2040
274 tgaacgttgc gaagcaacgg cccggagggt ggcgggcagg acgcccgcga taaactgcca 2100
275 ggcatacaat taagcagaag gccatcctga cggatggcct ttttgcggtt ctacaaactc 2160
276 tttttgttta tttttctaaa tacattcaaa tatgtatccg ctgggggatc cactagttct 2220
277 aga 2223

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280 &lt;210&gt; SEQ ID NO: 13

281 &lt;211&gt; LENGTH: 5669

282 &lt;212&gt; TYPE: DNA

283 &lt;213&gt; ORGANISM: Artificial Sequence

285 &lt;220&gt; FEATURE:

286 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence: Nucleotide sequence of

DNA

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287 fragment from the vector pVTPA-f between the rice atpB and
288 tobacco rbcL borders.

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290 &lt;400&gt; SEQUENCE: 13

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291 gtcgaggtca tgtcctgaag ttctttgtaa cgttgtaaag tttgcttaac tctttgtgca 60
292 gtttcataat gttcgttgcc aacgatccga ggttgtaaca tagttgaggt tgaatctaaa 120
293 ggatctactg caggataaat ccttttgga gctaatectc tggaaagtac ggtagtagca 180
294 tccaaatgtg caaatgttgt agcaggagca gggtcggta aatcgctccg aggtacataa 240
295 accgcttgga tcgaagttat agatcccttt ttagtagaag taattctttc ttgcaaagaa 300
296 cccatttctg tactaagagt aggttgataa cccactgcag agggcattct ccctaataag 360
297 gcagatacct ccgatcctgc ttgaacaaaa cgaaagatat tatcgatgaa tagaagcacg 420

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**VERIFICATION SUMMARY**

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Output Set: N:\CRF4\03182005\J527048.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:54 M:259 W: Allowed number of lines exceeded, <223> Other Information: